



PROJECT NAME: Clark County PROS Update ISSUE DATE: April 22, 2015

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SUBJECT: Trail System Needs Assessment

PURPOSE

As part of the update for the Clark County comprehensive parks, recreation and open space plan, an assessment of the regional trail system under direction of the Parks Division was conducted to review current status and provide direction for reinforcing future needs. This trail assessment is not intended to replace the existing trail plans. The need for a connected regional trail system is still strong. The county parks division is determining its role in contributing to the implementation of regional trail connections for their recreation value while recognizing the role of partnerships with active transportation value.

The trails of Clark County map shown at right illustrates the extent of existing public trails available for recreational and active transportation available throughout the county. While these trails support extensive use by residents and visitors, the overall network is fragmented and in need of considerable connections to close the gaps for enhanced value and function for Clark County residents and the contribution to associated economic effects of outdoor recreation.



Figure 1. Trails of Clark County

BACKGROUND

Trails in Clark County are part of the community-wide pedestrian and bicycle infrastructure that provides mobility and supports an active lifestyle for Clark County residents. Over the years, Clark County and its cities have demonstrated support for trails as an important community infrastructure by planning for trails through their adopted parks, recreation and open space plans and official trail systems plans. Review of the plans, listed below, provide the context and background for this park, recreation and open space planning update.

Regional Trail and Bikeway Systems Plan, 2006
Vancouver-Clark Parks, Recreation and Open Space Comprehensive Plan, 2007
2008 Greater Clark Parks District Local Trails Feasibility Study
2010 Bi-State Regional Trails Systems Plan
Clark County Bicycle and Pedestrian Master Plan, 2010
County Subarea Plans

Clark County's first trails plan was adopted in 1992. Since then the county has recognized the need for connectivity and establishing a network of pedestrian, equestrian and bicycle trails that are both functional for mobility and provide recreational value. Trail planning and recommended projects have been identified in both the park/recreation capital facilities improvement plan and the transportation improvement program (TIP). Past trail plans have also sought to integrate a network of safe walking and bicycling pathways that connect to cities within the county and function as part of the greater Portland-Vancouver metropolitan region trail systems.

Existing Trail Plans

Regional Trail and Bikeway Systems Plan, 2006

The 2006 Regional Trail and Bikeway Systems Plan encompassed 16 regional trails (land-based) supporting a network of nearly 240 miles of regional trails and bikeways. The plan also added the Lower Columbia River Water Trail. Recognizing the importance of transportation alternatives as well as the value of outdoor recreation in contributing to the quality of life in Clark County the plan also provides opportunities for investment in trails as an economic catalyst making Clark County a great place to live and work.

The county-wide 2006 Regional Trails and Bikeways Systems Plan defines trails as "any path, route, right-of-way, or corridor posted, signed or designated as open for non-motorized travel or passage by the general public." The 2006 plan identified five trail types:

- Regional, multi-use trails that link local and regional destinations across communities;
- Local trails that connect neighborhoods to regional multi0use trails;
- Rustic trails that access nature areas and provide loop opportunities;
- Semi-primitive trails for rural and forest settings;
- Bike lanes and pedestrian walkways that are within public right-of-ways.

The regional trails (proposed & existing) identified in the 2006 plan include:

Lewis and Clark Discovery Greenway Chelatchie Prairie Railroad Lake to Lake Salmon Creek Greenway Padden Parkway I-5 Corridor I-205-Corridor

East Fork Lewis River Greenway Battle Ground/Fisher's Landing Washougal River Corridor
North Fork Lewis River Greenway
Whipple Creek Greenway
North/South Powerline
East Powerline
Livingston Mountain Dole Valley

Camp Bonneville

Lower Columbia River Water Trail

In 2006, the existing regional trail system provided 46.2 miles of built shared pathways. Those miles of built trails are listed in Table 1.

Table 1. Existing Built Trails (2006)

Trail Name	Total length (miles)	Built length (miles)
	217 miles	46.2 miles
Lewis and Clark Discovery Greenway	46.1	9.5
Chelatchie Prairie Railroad	34.2	2.7
Lake to Lake	22.3	11.4
Salmon Creek Greenway	24.9	3
Padden Parkway	10	9.7
Interstate 5 Corridor	22	1
Interstate 205 Corridor	13	2
East Fork Lewis River Greenway	28.4	4.1
Battle Ground/Fisher's Landing	16.1	2.8

Vancouver-Clark Parks, Recreation and Open Space Comprehensive Plan, 2007

The 2007 Vancouver-Clark Parks, Recreation and Open Space Comprehensive Plan reported the trail inventory as displayed in Table 2 (below).

Table 2. VCPRD PROS Plan Regional Trail Inventory

Trail Name	Total length (333.9 miles)	Built length (46.3 miles)
Battle Ground/Fisher's Landing	16.1	2.8
Camp Bonneville	12.1	0
Chelatchie Prairie Railroad	34.2	2.7
East Fork of the Lewis River Greenway	28.4	4.1
East Powerline	16.5	0
I-5 Corridor	22	1
I-205 Corridor	13	2
Lake to Lake	22.3	11.4
lewis and Claark Discovery Greenway	46.1	9.5
Livingston Mountain/Dole Valley	21	0
North/South Powerline	20.6	0
North Forth Lewis River	31.5	0
Padden Parkway	10	9.7
Salmon Creek Greenway	24.9	3.1
Washougal River	10.4	0
Whipple Creek Greenway	4.8	0

The slight discrepancy between the two above inventories regarding miles of built trail are likely due to a difference in measurement for the Salmon Creek Greenway Trail of one-tenth of a mile.

Greater Clark Parks District: Local Trails

A feasibility study was conducted in 2008 to determine the proposed alignments for local trails within the metropolitan park district established in 2006 as the Greater Clark Parks District (GCPD). As part of the park development program, seven miles of trail alignments were to be acquired with GCPD funding to help provide local trails within the urban area. Once alignments connected significant destinations, volunteer programs and organizations were assumed to be the resource for constructing the actual trails.

The six GCPD trails identified in this local trail program are: Burnt Bridge Creek (1); Cougar Creek (2); Curtin Creek (3); LaLonde Creek (4); Salmon Creek (5) and Whipple Creek (6).



Figure 2. Greater Clark Parks District Local Trails

These local trails were not intended to replace sidewalks and regional trails or meet the design standards for regional trails rather the local trails allow for better connectivity within and through neighborhoods. In 2011, as a result of the economic recession, the trail alignment acquisition program was postponed.

Clark County Bicycle and Pedestrian Master Plan, 2010

The bicycle and pedestrian plan envisions an interconnected network of sidewalks, on-street bikeways, and off-street trails throughout the county. The plan identified top priority projects for the County to connect neighborhoods, schools, public facilities, business districts, and environmental features. In developing a more comprehensive bike and pedestrian system, the stated objective is to expand travel opportunities for transportation and recreation.

As part of the 2010 master plan, the community planning and public health departments collaborated on a comprehensive Health Impact Assessment (HIA) to identify policies and projects to facilitate cycling and walking. The HIA discerned health impacts associated with the plan and recommended implementation strategies to maximize residents' health benefits. The HIA identified priority projects based on their potential to increase physical activity and reduce health inequities among populations.

The primary focus of the 2010 bike and pedestrian master plan was the on-street network for active transportation facilities countywide. The master plan used the 2006 trails plan to identify where new on-street bicycle and pedestrian facilities could connect and leverage with existing trails and proposed trail alignments.

The 2010 Clark County Bicycle and Pedestrian Master Plan that recommended regional pathway improvement priorities uses a simplified category for trails:

- Side path parkways directly adjacent to roadways and within the right-of-way;
- Shared-use paths dedicated off street paved facilities for a variety of users; and
- Primitive trails non-paved pathways primarily for walkers.

The master plan offered design guidelines and best practices for both pedestrian and bicycle facilities. The master plan recommended the revision of the Bicycle Advisory Committee to include pedestrians becoming the Bicycle and Pedestrian Advisory Committee (BPAC). The top ten priority off-street projects (designated as a park department responsibility) included sections of the Salmon Creek Greenway, the North-South Powerline, and the Chelatchie Prairie Railroad. The plan also restates existing county policies (related to parks) that direct the provision of a comprehensive trail system to interconnect the regional trails and the transportation systems of sidewalks and bike lanes. The need to develop and maintain a comprehensive trail and bikeway system to link with other providers was also restated. Existing county policies related to trails included the provision of a system that will support the development of shared-use paths within one mile of every home within the urban area and a system of shared-use paths within one mile of every school.

County Subarea Plans

The County conducts subarea planning for more detailed growth management in specific geographic areas to help formulate focused community designs standards, as part of county-wide growth management planning. Some of these subarea plans have specific proposed local trail alignments or suggested additional trail connections.

The Highway 99 Subarea Plan located specific local trails to help connect residential, commercial and recreational designations by using off-street alignments through natural areas. Within chapter 9 of the adopted Highway 99 Subarea Plan, the proposed trails plan provides for a network of sub-area trails and sidewalks, trails design standards, and implementation measures. Most trail routes are within existing public rights-of-way with some off-street trail segments within existing parks and natural lands. The proposed Tenny Creek trail is a series of trails intended to be built in conjunction with new development to provide pedestrian connections between uses, streets and Tenny Creek Park. The proposed Cougar Creek Trails would help connect pedestrian circulation between commercial and high density residential areas.

Figure 3. Highway 99 Subarea Plan Trails Map



2010 Bi-State Regional Trails Systems Plan

The trail system within Clark County is also part of a bi-state, multi-metropolitan regional trail system, called The Intertwine, that connects active transportation and outdoor recreation users across Clark County and throughout the Portland metropolitan area. In April 2010, The Intertwine released the Bi-State Regional Trails System Plan "to coordinate the efforts of local businesses, non-profit organizations, government agencies and citizens to build the world's greatest network of parks, trails and natural areas." As part of a trail system extending across the Columbia River, the bi-state plan encompasses all the county-wide regional trails included in the 2006 Regional Trail and Bikeway Systems Plan.

Lewis River Vancouver Lake Water Trail Plan

The Lewis River-Vancouver Lake Water Trail covers much of the boundaries of western Clark County and extends from the borders of Woodland and La Center to Ridgefield and Vancouver. The 32-mile water trail follows portions of the North Fork and East Fork of the Lewis River, a short section of the

Columbia River, the entire reach of Lake River and Bachelor Slough, and reaches into the full extent of Vancouver Lake. The planning effort included the inventory of existing public and private water access and identified needs for improvement, enhancement and additional access sites. The plan also produced a water trail map for promoting safe and enjoyable use of the existing waterways within the 32-mile route. Recommendations from the water trail plan included improving public access sites; developing a water trail wayfinding sign system; developing a mobile paddling guide app; adding launch site improvements to local jurisdictions' capital facilities plans; and forming a water trail coalition to promote water-based recreation.

Other Trails and Programs: Beyond Clark County into the Columbia River Gorge

The Chinook Trail

The Chinook Trail is a vision and work in progress. Once completed it will be a 300+ mile rim-to-rim loop encircling the Columbia River Gorge across both southern Washington and Oregon. To date the Chinook Trail Association (CTA) has completed a 30 mile stretch northeast of Vancouver that received National Recreation Trail status in 2005. The original route was proposed by co-founders Ed Robertson and Don Cannard. In its proposed alignment, the Chinook Trail will begin at Vancouver Lake in Clark County, Washington. The trail will climb northeast to its highest point, Silver Star Mountain, before meandering onto the rims of the Columbia River Gorge and continuing upriver to Maryhill State Park.



Figure 4. Chinook Trail map
Source: Chinook Trail Association website

The following trails comprise a 30-mile segment beginning near Yacolt, continuing over the summit of Silver Star Mt. and ending approximately 8 miles from the junction of the Three Corner Rock and Pacific Crest Trail: Lucia Falls, Bells Mt., Tarbell, Kloochman Butte, Ed's Trail and Bluff Muontain.

Gorge Towns to Trails Program

The Friends of the Columbia Gorge are implementing a towns to trails program seeking to promote the use of trails, their connections to Gorge towns and the economic activity that trail use can generate in those local economies. The Friends of the Columbia Gorge envision a comprehensive trail system that links the communities with recreation and tourism benefits. This outdoor recreation activity is also one of the Columbia River Gorge Commissions key priorities for future efforts. Clark County is situated on the western edge of the Gorge. From the north side of the Columbia River, the county could be considered the gateway into the Gorge from the metropolitan Vancouver/Portland region. As such, there could be potential benefit from future connections of the Chinook Trail and the Friends' Towns to Trails Program. The loop nature of the proposed Columbia Gorge trail connections would require the use of

the I-205 bridge bike/ped crossing and thus include that eastern portion of Clark County, including Camas and Washougal.

Lower Columbia River Water Trail

The Lower Columbia River Water Trail spans the bi-state region from below the Bonneville Dam traveling 146 miles to the Pacific Ocean. The water trail includes several portions of the Lewis River-Vancouver Lake Water Trail as it travels through Clark County. The Lower Columbia Estuary Partnership hosts an interactive web-based guide to facilitate paddling trip planning. The interconnected system of rivers that border and flow through Clark County provide a variety of recreational opportunities that extend beyond county boundaries.

Trail Inventory Changes

Since the 2006 trails plan and the 2007 parks plan, approximately one mile of the Chelatchie Prairie Railroad Trail was completed as a paved shared path from Battle Ground Lake State Park south to the Washington Department of Natural Resources (DNR) lands. A portion of the Washougal River Greenway Trail in Camas was completed from SE 6th Loop to SE 3rd Street, crossing the River and adding approximately 1.4 miles of paved trail. In 2014, a one-mile extension of the Vancouver Lake Regional Park trail system (aligned with the Lake to Lake Trail) was initiated as a volunteer-built project in collaboration with the Washington Trails Association and should be completed by the end of 2015.

Also since the 2007 parks plan, portions of the Lewis and Clark Discovery Greenway Trail have been constructed as off-street shared pathways by the Port of Vancouver as development occurs and funding is available. Another 1/2-mile extension of the Lewis and Clark Discovery Greenway Trail is expected to occur when the City of Vancouver implements is waterfront park development project. Since 2007 approximately five (5) miles of additional trail segments have been added to the regional trail system. This rate of implementation of five (5) miles in nine years (occurring during an economic recession) will not result in the desired regional trail system completion for several centuries.

Trail Usage Measurements

In addition to the collaboration for the bi-state trails system plan, jurisdictions within the Vancouver-Portland metropolitan region collaborate on an annual trail count to measure the trends in bicycle and pedestrian use across the bi-state area. The trail counts are conducted in September and measure two-hour periods on two weekdays and two weekend days. The users' counts are extrapolated into annual usage using the National Bicycle and Pedestrian Documentation Project (NBPD) methodology.

In 2011, The Intertwine (a coalition of supporters for parks, trails and natural lands across the Vancouver-Portland metropolitan region) released a regional trail use snapshot report with trail usage and survey results for 2008 through 2010. The snapshot showed that, across the region, the share of bicycle

and pedestrian users on The Intertwine is nearly even, with pedestrians representing fifty percent and bicyclists representing forty-eight percent of total trips. Other modes such as wheelchairs, horses, roller blades, and skateboards make up the remaining two percent of users.

In general, trail use has been continuing its growth as new connections provide better routes for both pedestrians and cyclists. The annual estimated use of trails operated by the County are shown in the Table 3 (below). Population density and proximity to active retail and employment centers tend to exhibit higher trail usage numbers as more people are congregated around home, work and shopping activities where trail use can provide an additional amenity or connection. The distance of Frenchman's Bar Trail from downtown Vancouver affects those trail counts just as the Padden Parkway's long gaps between destinations affects the numbers of pedestrian users. Salmon Creek Trail is accessible to extensive residential communities and provides a natural riparian setting that attracts trail visitors from beyond those adjacent neighborhoods.

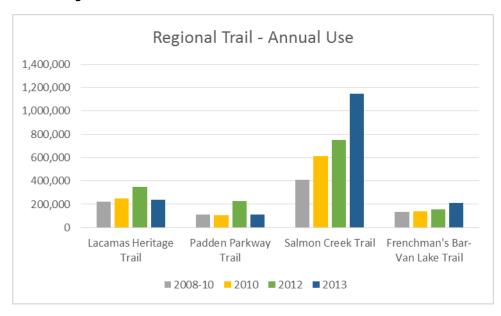


Table 3. Regional Trail Use: Annual Trends

In a few locations across Clark County's regional trail system, trail counters have been installed to measure trail usage on a daily, weekly and monthly basis. This data can be compared to the annual regional trail counts which predict trail use through the NBPD forecasting methodology. Trail counter devices were installed at strategic locations on the Burnt Bridge Trail, Salmon Creek Trail, Whipple Creek Trail, and Moulton Falls Trail in late 2010/early 2011. Technical adjustments to data gathering, interpolation, trail counter miscues and battery reliability have led to incomplete data collection after the first year of service. As a result the existing trail counters have not provided the targeted reliability desired for gathering trail usage on those trails which are not part of the annual regional trail count program. However, the first year of data collection indicated that the trail counts and trail counters were fairly close in tabulating the 2011 trail use along the Salmon Creek Trail. The following years had large gaps in data, probably from technical issues with the consistent data collection of the mechanical counters. Table 4

(below) compares the regional trail count interpolated annual trail use with the mechanical trail counters triggered trail user counts.

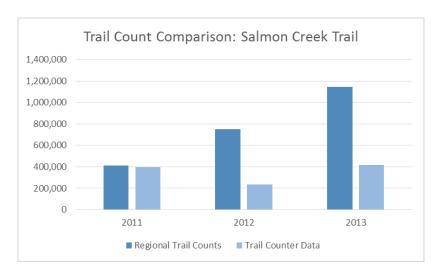


Table 4. Annual Trail Counts vs. Trail Counters

The gaps and discrepancies in trail count data indicate a need for the County to gather more reliable trail usage data with the installation of additional trail counters and a regular monitoring and collection program. Accurate trail counts for county-wide regional trails could provide valuable supportive data for grant applications, capital improvement project priorities and budget planning.

Additional data related to trail use can be extrapolated from past regional park vehicle visit counts. Since 2007, regional parks have experienced a steady increase in visitor numbers. Related to the fee collection program, vehicle counts were conducted during the summer months through 2011 (when the fee program was discontinued). Added facilities, increased populations and wider spread familiarity are some explanations for the increase in park users. Regional park visitors often include use of regional trails as part of their park activities. Many regional trails begin, end or extend through regional county parks. To supplement the trail count data, traffic counts at regional park entrances could provide additional use information.

BENEFITS AND PUBLIC SUPPORT

Numerous studies across the globe have illustrated the importance of trails and their contribution to a healthy and sustainable community. American Trails provides ready access to a number of this studies in their website resources (http://www.americantrails.org/resources/benefits/index.html). Benefits enhance the livability of neighborhoods and workplaces; increase economic activity through tourism, civic improvement and higher housing values; preserve and restore open space; and offer opportunities to improve fitness through physical activity.

"Access to parks and natural areas close to home and work has become increasingly important to communities' health and well-being. The ability to travel, exercise and recreate on trails has been identified by the public as a top priority in surveys conducted by local, state and federal parks and recreation providers." (from the Intertwine Bi-State Trail Plan)

The Bi-State Trails Plan also state that a functioning and connected regional trail system can:

- improve public health and reduce health care costs by combating heart disease and obesity rates
- reduce congestion and transportation costs with fewer cars on the road
- provide inexpensive alternatives to automobile use
- foster the development of dynamic, mixed-use communities
- provide safe corridors for people of all ages and abilities to travel
- provide important connections to nature
- increase property values and economic development opportunities for local communities.

Highlights from the 2011 Intertwine Snapshot report that trail user surveys also revealed:

- Trails next to freeways and busy roadways draw significantly more bicyclists than pedestrians.
- Longer, better connected trails tend to have a higher proportion of bicyclists.
- Shorter, less connected trails tend to have a higher proportion of pedestrians.

CURRENT CONDITIONS: GAP ANALYSIS

Clark County is blessed with an extensive network of trails which span the entire county providing pedestrian and bicycle connections and outdoor recreation opportunities to its residents. However, this network contains many gaps across its on-street and off-street pathways, and its regionally-connecting backcountry trails. Additionally, the County's sidewalk system within the Vancouver Urban Growth Area is incomplete; numerous gaps make it difficult for residents to connect to parks, schools, shopping, workplaces and trail corridor linkages.

The County's adopted 2006 Regional Trails and Bikeways System Plan promotes an interconnected system of trails and greenways throughout the County. The County does not have an adopted standard for its trails and greenways. The regional trails plan proposes an additional 180 miles of trails to the existing 60-mile network to connect to more destinations and serve as a more legitimate transportation alternative. When the trails plan is implemented in its entirety, Clark County will have over 300 miles of trails.

While no specific standard for trails has yet been proposed, some comparison to the historic National Recreation and Park Association (NRPA) Standards can provide a benchmark. For bicycle and jogging trails the former NRPA standard was 1 mile/1,000 population. At Clark County's 2014 population of 435,500, some 435 miles of trails would measure up to the historic standard. While the NRPA standard was intended for urban areas, the need for more mileage within the regional system still falls short of making critical connections. The Washington State Comprehensive Outdoor Recreation Plan (SCORP) and local public surveys reinforce the value of trails with their survey results that indicate walking and hiking trails rank as the most valued park amenity.

Given the additional five miles of trail segments that have been built since the 2006 trails plan and the 2007 parks plan, the completion of the regional trail system's will need to address the system-wide gaps discussed in the 2006 Regional Trails and Bikeways Systems Plan to help implement the trail network at a faster rate.

FUTURE TRAILS: CLOSING THE GAP

Throughout the planning efforts for trails in Clark County, it has been recognized that greater connections and closing the many gaps in the trails network will enhance both recreation and active transportation opportunities. Promoting future trails projects through both transportation capital improvement plans and parks capital facilities plans will increase the likelihood of capturing funding resources to implement trail projects.

The 2010 Clark County Bicycle and Pedestrian Master Plan developed prioritization criteria to guide the ranking of trail projects. The master plan also lists the higher priorities for identified side path, shared-use path and primitive trail projects.

The 2006 Clark County Trail and Bikeways Systems Plan can be used as one directive to determine an approximate goal for trail acquisition and development. That trail system plan led the way for the 2007 VCPRD 6-Year Capital Facilities Plan. The 6-year CFP listed trail acquisition, development and improvement projects in the urban unincorporated area (GCPD) and regional system. Within the (GCPD) metropolitan park district acquisition and development included:

- Curtin Creek Trail acquisition,
- LaLonde Creek Greenway and Trail alignment acquisition,
- Cougar Creek Greenway and Trail alignment acquisition and
- Whipple Creek Trail.

The CFP included a segment of the Salmon Creek Greenway Trail as part of proposed conservation area acquisitions within the urban unincorporated area (UUA). Other UUA trail developments on the CFP included:

- East Powerline Trail,
- Vancouver Lake Trail,
- Salmon Creek Greenway Trail and
- bank stabilization for a portion of the existing Salmon Creek Trail.

The 6-year CFP also included an urban area trail signage program to design, fabricate and install a wayfinding system to unify the county's urban trails identity.

The regional trail system on the 6-year CFP cited trail acquisition projects associated with:

- the Livingston Mountain Trail, Green Mountain Trail and
- the Chelatchie Trail.

Trail development and improvements for regional trails included:

- Vancouver Lake Trail,
- Chelatchie Trail and
- a regional trail signage program.

The VCPRD 20-year Capital Facilities Plan proposed trail development in the urban unincorporated area for:

- the Chelatchie RR Trail,
- Salmon Creek Greenway Trail and
- the Whipple Creek Trail.

In the regional trail system the 20-year CFP listed acquisition targets for:

- the Green Mountain Trail,
- China Ditch and
- Chelatchie Trail.

CFP trail developments were targeted for:

- Camp Bonneville Trail,
- Camp Currie-Lacamas Trail,
- Chelatchie RR Trail,
- I-5 Corridor,
- North Fork Lewis River, and
- Washougal River Greenway Trail*.

* The Washougal River Greenway Trail development project was completed several years ago when the need for local utilities crossing the Washougal River triggered the need for a new bridge. The trail development project was partnered with this infrastructure project allowing the trail implementation to occur well ahead of the anticipated target dates. The project helps to illustrate the importance of longer term planning to allow park and trail projects to capture opportunities to partner with other transportation and utility infrastructure improvements.

The Clark County Bike/Pedestrian Master Plan offers a set of criteria for evaluating and prioritizing trail projects across the urban and regional trail system. These criteria can provide an effective method for sequencing the trail improvement projects based on available implementation resources. Those suggested criteria are closing gaps; safety and comfort; access and mobility/land use; multimodal connections; implementation; community benefit; and healthy outcomes. The Washougal River Greenway Trail example mentioned above illustrates the value of capturing opportunities to partner with other agencies and projects that might coincide with future trail alignments. Utility and transportation projects are common examples of good partnering opportunities. Any proposed trail project plans should have some flexibility for scheduled implementation to allow for capturing partnerships.